

WORM FARMING WORKSHOP



Worm farming or vermiculture is a cornerstone of any organic gardening system. It allows you to recycle organic materials, produces both solid and liquid fertilisers and maintains biological activity of the soil. The worms do all this work free of charge and you can sell surplus worms for income.

Worms must be regarded as livestock and managed accordingly for the maximum benefit. Give them what they need and they will pay you back a hundred-fold, neglect them and they will leave.

TYPES OF WORMS

There are thousands of species of earthworms and they can be divided into two general groups, these are:

The composters:

These come from moist, stable environments rich in organic matter and include Tiger, Red and Blue. They generally do not burrow, staying close to the surface. These are the type we use in our worm farms.

The earth workers:

These worms come from more variable environments and burrow deep into the soil. They are usually much larger and will not do well on food wastes. Do not use these in worm farms – use these in the garden beds.

TYPES OF WORM FARMS

Many types of containers can be used as worm farms including bathtubs, fruit crates, old compost bins and plastic tubs.

Key goals of a worm farm:

- Vermin-proof
- Cool/moist conditions
- Capture worm pee
- Good air flow (vents)
- Easy removal of castings
- Protection from weather.

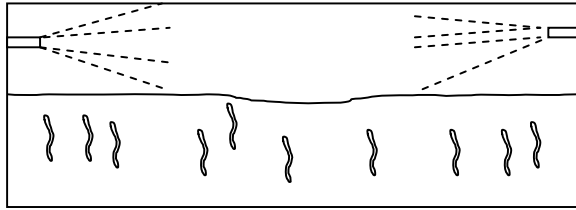
WATER

The correct moisture is critical as the worms need it to feed, breathe, “drink” and stay cool. All the worms in your farm can die on one hot day without the correct moisture.

The amount of water only needs to be small but it needs to be applied consistently. Here is my rule of thumb for watering the worms.

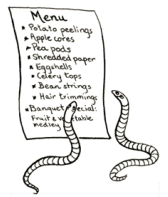
Spring	Every 3 to 4 days
Summer	Every day (twice a day if over 35°C.)
Autumn	Every 3 to 4 days
Winter	Once per week

The key is to water very small amounts often. The only way to do this reliably is with an automatic watering system as shown below. 1-2 minutes run time is usually enough. Small mister nozzles (black and yellow) can be purchased from hardware stores.



FOOD

I often hear many taboos about the feeding of composting worms regarding what not to feed them. I tend to use common sense – no meat and dairy as this tends to go rancid, which is bad for the worms. Other than that, everything in moderation.



More important is under or over feeding. As a general rule do not cover more than about 30% of the surface area at each feeding and DO NOT feed again till 99% of that food is eaten.

BEDDING

The bedding where the worms live will compact with time so regular “aeration” is needed so the worms can breathe.

This is done on at least a monthly basis by inserting a garden fork and twisting.

DO NOT “turn over” the bedding material as buried food will go rancid and lead to worms leaving.

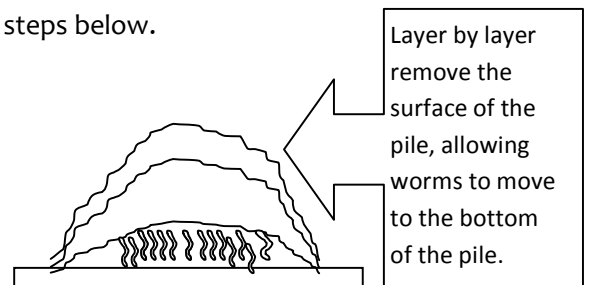
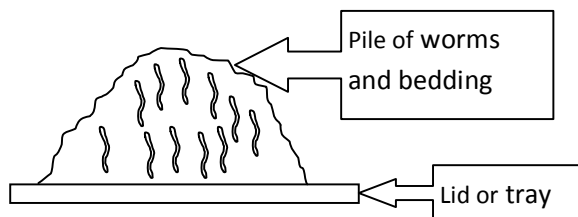
HARVESTING

Worms will lay about a capsule (see photo below) per week and a few babies will hatch about a month later. These young worms will mature in 30-90 days, depending on temperature. This means they will double their population every two months.



Worm “egg” or capsule

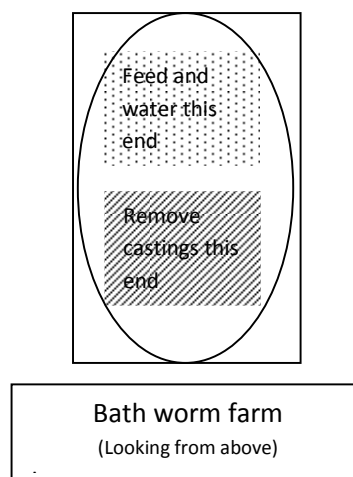
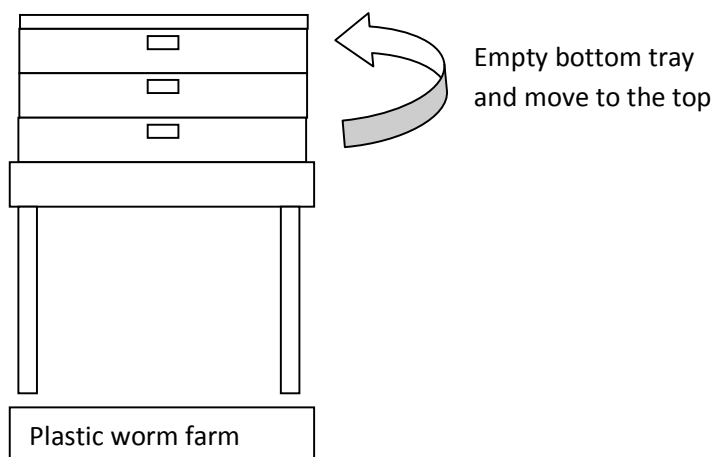
The simplest way to harvest worms is using their hate of sunlight; see steps below.



Castings

There are two general ways to harvest castings (worm poo). As shown below, smaller black plastic farms have a convenient tray system. Once the final top tray is full, the bottom tray may be emptied of rich castings. Then move the empty tray to the top to start the process again.

The bathtub design is just as easy by simply feeding and watering at one end only for a few weeks. This way the worms move mostly to that end. Then it's a simple process of removing the castings from the opposite end with a fork. See diagram below.



Worm Juice (pee)

The liquid that drains from the farm is a valuable fertiliser that can be used to fertilise all your plants. Simply place a container under the outlet to collect. Use at one part worm juice to 9 parts water.

STARTING A NEW WORM FARM

Step one

Soak bedding material in water for a minimum of an hour, preferably overnight.

Allow enough bedding to form a minimum 100 mm thick layer in your farm.

Common bedding materials:

- Castings from original worm farm (should already be moist so no soaking)
- Coir (shredded coconut fibre)
- Shredded paper (max. 50% of mix)
- Well-rotted manure or compost.

DO NOT USE SOIL

Step two

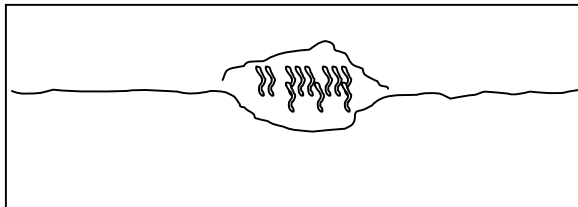
Place bedding in worm farm and allow excess water to drain.

DO NOT press or compact bedding – you want it fluffy.

Step three

Make a small depression in the bedding and place the worms in one small pile in the depression.

DO NOT spread them out – allow them to move out on their own.



Step three

Close the lid or cover with damp material. Only feed small amounts until they eat all new bedding. Water as required.